



# P.E.S. College of Engineering, Mandya - 571401

(An Autonomous Institution, affiliated to VTU, Belagavi)

## Faculty Profile

### General

Name	Dr.R.MANJUNATHA
Designation,	Associate Professor(Mgt.,)
Department & Affiliated Institution	Department of Electronics & Communication P.E.S College of Engineering, Mandya – 571 401
Research Area	Image processing
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Email ID	<a href="mailto:rmanjunatha@pesce.ac.in">rmanjunatha@pesce.ac.in</a>
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### Academic Profile

#### Educational Qualifications

Degree	College	University	Year of Passing	% age	Class
Ph. D	PETRF	UOM	2019	Awarded	
M. E	UVCE	BU	2008	-	-
B. E	SRSIT	VTU	2003	-	-

#### Professional Experience

Organization and Department	Designation	Period	Total Experience
BTLIT,ECE	Lecturer	04.08.2007- 26.07.2008	Two semester
SVCE,ECE	Lecturer	28.07.2008- 05.12.2008	One semester
PESCE, Mandya	Assistant Professor	29.07.2009- 20.10.2022	13 years
PESCE, Mandya	Associate Professor	20-10-2022 to till date	--

### Reports on Academic and Research Activities

#### Academic Activities

Teaching Records (Details of courses taught)	Undergraduate: Electronic Instrumentation, Digital Image processing, Basic Electronics, Wireless Mobile communication, Computer communication networks Post Graduate (M. Tech): Automotive Electronics
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#### Research Guidance (Candidates Awarded / Pursuing Ph.D / M.Sc., Engg./ M.Phil)

Degree	Ph. D.	M.Sc., Engg.	M.Phil
Awarded	Nil	Nil	Nil
Pursuing	Nil	Nil	Nil

#### Sponsored Research Projects (List of Projects taken up /completed and funds receiver & funding sources)

Project Title	Project Funded by	Grants Sanctioned	Grants Received
Nil	Nil	--	-

#### Research Publications in Refereed Journals and Conferences/Symposia

Number of Publications in	National	International
Journals	-	08
Conferences/Symposia	10	05

#### Other Important Responsibilities Held in the College

1. Chairman BOE (ECE)	4. PESCE – NAAC-IQAC ECE dept. coordinator
2. NBA criterion 3 coordinator for the department	5. Executive member of ISTE.
3. BoS member (ECE)	6. Time table coordinator.

**Achievements/Awards:**

1. *First Best paper award for paper presentation in international conference (ICEECS-2020).*
2. *Best Paper award in ICERECT 2018, PESCE, Mandya.*

**Other Responsibilities outside the college.**

1. *Subject Expert Academician for VTU Financial Assistance for Innovative Final year projects.*
2. *Expert reviewer for the various international conferences.*
3. *V.T.U Research Supervisor (Ph.D. Guide ship).*

**Member of Professional Bodies:**

1. *The Indian Society for Technical Education (MISTE)  
Life time Membership Number LM78499.*
2. *Institute for Exploring Advances in Engineering (IEAE)  
Life time Membership Number IEAE2017F33A.*
3. *IIP fellow Member I D. IEAE2017F33A.*

## **LIST OF PUBLICATIONS:**

### **I. Paper Publications in Journals.**

- 1 R Manjunatha, Manojkumar S.B and Dr. H.S.Sheshadri “Optic Disc Detection using Red Channel Component in Fundus Images by Morphological Operations” International Journal of Engineering Technology, Management and Applied Sciences (IJETMAS), June 2017, Volume 5, Issue 6, ISSN 2349-4476.
- 2 Srikanth N, R Manjunatha “A Portable biometric authenticated wireless data transmission” International Journal of Engineering, Basic sciences, Management & Social studies (IJEBMS) ,Volume 1, Issue 1, May 2017, 978-93-84698-33-1.
- 3 Manojkumar S.B, R Manjunatha and Dr. H.S.Sheshadri “An Identification of diabetic retinopathy using kirsch edge detection and watershed transformation algorithm” International Journal of Engineering, Basic sciences, Management & Social studies (IJEBMS), Volume 1, Issue 1, May 2017, 978-93-84698-33-1.
- 4 R Manjunatha, Mahesh Koti and Dr.H.S.Sheshadri “Boundary Extraction and Tortuosity Calculation in Retinal Fundus Images” pp 1119-1130, Springer, Doi: 10.1007/978-981-13-5802-9\_96.ICERECT-2018,PESCE, Mandya.
- 5 R Manjunatha and Dr.H.S.Sheshadri “Retinal image vessel width analysis in Retinopathy of Prematurity” Asian Journal of Computer Science and Technology (AJCST), ISSN: 2249-0701 Vol.8 No.2, 2019, pp. 59-63
- 6 R Manjunatha and Dr.H.S.Sheshadri “Boundary Extraction and Vessel width Calculation in Retinal Fundus Images” Asian Journal of Engineering and Applied Technology (AJEAT), ISSN 2249-068X Vol.8 No.2, 2019, pp. 63-70
- 7 R Manjunatha and Dr.H.S.Sheshadri “Retinal image analysis for ROP Plus diagnosis and detection ” TEST Engineering and Management,Volume 82, ISSN: 0193-4120 Jan-Feb 2020, Page No. 15766 – 15771.
- 8 Bini Babu, Sathish Kumar H, Manjunatha R and Parthasarathy S.S “Optimal Selection Of Materials For High Performance of Carbon-Aerogel Supercapacitors” AIP Conf. Proc. 2421, 050003-1–050003-9; <https://doi.org/10.1063/5.0076862>.

### **II. Papers presented in Conference:**

1. R.manjunatha, 2014 “Efficient FPGA implementation of adaptive noise canceller based on LMS algorithm”\_6<sup>th</sup> National Conference on Recent Trends in Electronics and Communication Engg(NCRTEC-14) held at SJBIT, Bengaluru on 10<sup>th</sup> May 2014
2. A Reconfigurable 5 to 14 bit SAR ADC for battery powered medical instrumentation. National conference: G'Tech-Expo-16, GMIT
3. A Comparative study of aging –aware reliable multiplier. National conference: G'Tech-Expo-16, GMIT
4. “Hardware implementation of pipeline based router design for on-chip network” NCEEE-2014,IEEE-HKKBCE,Bangalore.

5. "ARM based smart ATM access and security system using Biometric Identifier and GSM technology", National conference: Emerging trends in Engineering and Technology(G-Tech-15), GMIT,MANDYA.
6. "Faster communication through light fidelity (LI-FI)" National conference: Emerging trends in Engineering and Technology(G-Tech-15), GMIT,MANDYA.
7. National conference: Emerging trends in Engineering and Technology(G-Tech-15), GMIT,MANDYA.
8. "Design of a novel architecture of a RF generator and its implementation on Xilinx FPGA" Emerging trends in electronics and communication (NCETEC-15) ,BGSIT, B.G.Nagar.
9. "VLSI based Image scaling application for raw images by using a novel video stream scalar technique." Emerging trends in electronics and communication (NCETEC-15) ,BGSIT, B.G.Nagar.
10. "Design of digital coherent GPS signal receiver and implementation on Xilinx FPGA." Emerging trends in electronics and communication (NCETEC-15) ,BGSIT, B.G.Nagar.

### III. International Conference:

1. *ManojKumar.S.B , R Manjunath and Dr.H.S.Sheshadri "Feature extraction from the fundus images for the diagnosis of diabetic retinopathy", IEEE,DOI:10.1109/ERET.2015.7499020, ICERECT-2015,PESCE,Mandya*
2. R Manjunatha, Mahesh Koti and Dr.H.S.Sheshadri "*Boundary Extraction and Tortuosity Calculation in Retinal Fundus Images*" Springer, ISBN 978-981-13-5801-2, ICERECT-2018, PESCE, Mandya, pp 1119-1130, 2018.
3. R Manjunatha and Dr.H.S.Sheshadri "Retinal image analysis for ROP Plus diagnosis and detection" ICEECS-2020, UNS Institute of Engineering and Technology, VBS Purvanchal University, Jaunpur, Uttar Pradesh, January 2020.
4. Sathish Kumar H, Bini babu, Sarin M V and R. Manjunatha, "Detailed study of 125/60 TPH Aggregate crushing Sand Plant using plethora of machinery," 2021 International Conference on Design Innovations for 3Cs Compute Communicate Control (ICDI3C), 2021, pp. 27-30, doi: 10.1109/ICDI3C53598.2021.00014.
5. Bini Babu, Sathish Kumar H, Manjunatha R and Parthasarathy S.S "Optimal Selection Of Materials For High Performance of Carbon-Aerogel Supercapacitors" 2nd International Conference on Advanced Research in Mechanical Engineering (2nd ICARME – 21) AIP Conf. Proc. 2421, 050003-1–050003-9; <https://doi.org/10.1063/5.0076862>

## List of Seminars/ Workshops Attended:

1. One week AICTE Training And Learning (ATAL) Academy Online Elementary FDP on “Art and Science of Effective Teaching: Strategies and Methods” from 21/02/2022 to 25/02/2022 at Dev Samaj College for Women, Sector 45B, Chandigarh.
2. One week AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Optoelectronics: Advanced Materials& Devices" from 01/02/2022 to 05/02/2022 at Shri Shankaracharya Group of Institutions , bhilai.
3. One week AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Effective Leadership and Excellence in Technical Education" from 15/11/2021 to 19/11/2021 at Women Engineering College Ajmer.
4. A Webinar on “Multimedia Communication Strategy Emphasizing in Technical Educational ” held on 03/03/2021.
5. One week AICTE Training And Learning (ATAL) Academy Online FDP course on "Telemedicine" from 19-01-2021 to 23-01-2021 at G.PULLA REDDY ENGINEERING COLLEGE (AUTONOMOUS).
6. One week AICTE Training And Learning (ATAL) Academy Online FDP course on "Robotics" from - 05-01-2021 to 09-01-2021 at Rajeev Gandhi Memorial College of Engineering and Technology.
7. One week AICTE Training And Learning (ATAL) Academy Online FDP course on "Sensors Technology" from 21-09-2020 to 25-09-2020 at Dr. Ambedkar Institute of Technology.
8. Five week course on “Introduction to Calculus” an online non-credit course authorized by The University of Sydney and offered through Coursera, successfully completed on August 28th 2020.
9. AICTE Sponsored Online Short Term Training Program on "Mathematical Foundations of Machine Learning (Statistics and Neural Basis) by the Department of Electronics & Communication Engineering, NMAM Institute of Technology, Nitte—574110, Karnataka, India during 14<sup>th</sup> to 21<sup>st</sup> August 2020.
10. AICTE Sponsored Online Short Term Training Program on "Mathematical Foundations of Machine Learning (Linear Algebra & Probability Basis) by the Department of Electronics & Communication Engineering, NMAM Institute of Technology, Nitte—574110, Karnataka, India during 07<sup>th</sup> to 13<sup>th</sup> August 2020.
11. Eight week online course on “Matlab programming for Numerical computation” held by NPTEL, IIT, Madras January-March 2020.
12. One week Faculty Development Programme “Synthesis, Characterization and Application of Advanced materials” held at PESCE, Mandya from 27<sup>th</sup> to 31<sup>th</sup> January 2020.
13. One week Faculty Development Programme “ Recent Advanced in VLSI Design and Hands-on with CADENCE Tools” held at PESCE, Mandya from 15th to 19th July 2019.
14. One week FDP on “Block chain Technology and Cloud computing using Amazon Web services” during 21<sup>st</sup> to 25<sup>th</sup> January 2019, held at P.E.S.C.E, Mandya-571 401.
15. One day workshop on “Research Literacy: Academic Writing, E-Resources and Research Quality Indicators” 22 September 2018, held at P.E.T Research Foundation, P.E.S. C.E, Mandya.
16. Faculty Development Programme on “Foundation Program in ICT for Education”, 08/03/2018 to 12/04/2018, conducted by IIT Bombay, Remote Centre P.E.S.C.E, Mandya.
17. Faculty Development Programme on “Biomedical Signal Processing and Analysis for Cognitive Neuroscience Study” held at P.D.A College of Engineering, Kalaburagi from 1<sup>st</sup> to 12<sup>th</sup> Jan 2018.
18. Faculty Development Programme on “VLSI Verification” Mandya from 16<sup>th</sup> Nov to 20<sup>th</sup> Nov 2016.

19. Workshop on “Lean Manufacturing” held at PESCE, Mandya from 29<sup>th</sup> and 30<sup>th</sup>, Jan 2016(TEQIP)
20. Faculty Development Programme on “Total Quality Management Practices in Power Sector” held at PESCE, Mandya from 28<sup>th</sup> June to 2<sup>nd</sup> July 2016(TEQIP)
21. Faculty Pedagogical Development Programme on “Train the Trainer” , held at PESCE, Mandya from 6<sup>th</sup> to 10<sup>th</sup> July 2015.
22. Faculty Development Program on “Basic Pedagogy for Technical Teachers”, held at PESCE, Mandya from 6<sup>th</sup> to 10<sup>th</sup> Jan 2015.
23. Faculty Development Program on “Advanced Embedded Systems and its Applications” held at PESCE, Mandya from 13<sup>th</sup> Oct to 18 Oct 2014.
24. Signals and Systems, held at PESCE, Mandya from 2<sup>nd</sup> to 12<sup>th</sup> Jan 2014.
25. Train the teacher work shop,PESIT, Bangalore from 22<sup>nd</sup> to 26<sup>th</sup> July 2013.
26. Train-the-Teacher, Hands-on workshop, conducted by IEEE Computer Society, held at PES College of Engineering, Mandya on 22<sup>nd</sup> to 26 July 2013.
27. Recent trends on Renewable Energy sources and management, held at PES College of engineering ,Mandya from 8<sup>th</sup> to 13<sup>th</sup> July 2013
28. Analog Electronics conducted by ISTE, Kharagpur, held at PES College of Engineering, Mandya from 4<sup>th</sup> – 14<sup>th</sup> June 2013
29. Database Management Systems, conducted by IIT, Bombay, held at PES College of Engineering, Mandya from 21<sup>th</sup> – 31<sup>st</sup> May 2013
30. Hands on Training on Network Simulator-2(NS-2), held at Dr.AIT, Bangalore from 19<sup>th</sup> – 23<sup>rd</sup> March 2013
31. Recent Advances in Communication and Signal Processing(RACSP-2013) held at PDA college of Engineering, Gulberga from 21<sup>st</sup> to 25<sup>th</sup> Jan 2013.
32. Hardware and Firmware Design for ARM based Embedded Systems organized by C-DAC, Hyderabad in collaboration with JNTU, Hyderabad from 18<sup>th</sup> – 29<sup>th</sup> June 2012.
33. A Golden Jubilee Faculty Development workshop on “Achieving Excellence in Teaching Skills and Values” held on 28<sup>th</sup> April 2012 at PESCE, Mandya
34. Sensors and Robotics, held at Acharya Institute of Technology, Bangalore from 18<sup>th</sup> July to 1<sup>st</sup> Aug 2011.
35. Basic Electronics, conducted by IIT, Bombay held at SJCS, Mysore from 28<sup>th</sup> June to 8<sup>th</sup> July 2011.
36. Advances in CMOS VLSI Design, held at PES College of Engineering, Mandya on 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> Feb 2011.
37. Mission 10X ,held at PES College of Engineering, Mandya from 9<sup>th</sup> – 13<sup>th</sup> Aug 2010.
38. Electromagnetics and Applications, SJCIT, Chickballapur on 23<sup>rd</sup> to 25<sup>th</sup> June 2010.